



Literacy Strategy

Module: Solids and Liquids	Grade and Year: 2 nd Grade Year 1
Name of Reading Selection: Everything Matters	Page Numbers: 3-7

Before Reading Strategy:

Explain that most things on Earth are one of three states of matter.

Ask students to identify those three states of matter.

Prompt them, if necessary, by having them recall the bags containing a rock, water, and air that were shown at the beginning of the module.

Mention that today's reading selection is about these three states of matter.

During Reading Strategy:

Read the selection aloud, stopping to ask the questions presented in the text.

After Reading Strategy:

Have the students create a three-tab foldable (® Dinah Zike) listing solids, liquids, and gases which they are familiar with under the appropriate flap.

solids	liquids	gases
--------	---------	-------

Resources:

Zike, D. (2004). *Big book of science*. San Antonio: Dinah-Mite Adventures, LP.



Literacy Strategy

Module:
Solids and Liquids

Grade and Year:
2nd Grade Year 1

Name of Reading Selection:
Solids and Liquids

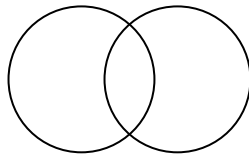
Page Numbers:
8-13

Before Reading Strategy:

Ask, "What is the difference between solids and liquids?"

Have the students create a Venn diagram in their science notebooks to record their answers.

Solids Liquids



Explain that this reading selection will help us better distinguish the difference between solids and liquids.

During Reading Strategy:

Read the selection aloud and ask the students to listen for new information and add it to their Venn diagrams.

After Reading Strategy:

Discuss the questions on page 13 of the selection.

Use the following table for suggested answers.

<i>Photo</i>	<i>Solids</i>	<i>Liquids</i>
Bowl of cereal	Raspberries	Milk
	Cereal flakes	
	Spoon	
	Place mat	
	Napkin	
	Pitcher	
Root Beer float	Ice cream	Root beer
	Straw	Melted ice cream
	Glass	
	Plate	
	Napkin	
	Spoon	
Bowl of soup	Alphabet noodles	Broth
	Bowl	

Have the students make corrections and/or additions to their Venn diagrams.

Resources:

n/a



Literacy Strategy

Module:

Solids and Liquids

Grade and Year:

2nd Grade Year 1

Name of Reading Selection:

Solids to Liquids and Back Again

Page Numbers:

14-17

Before Reading Strategy:

Ask if anyone has ever eaten an ice cream cone on a hot summer day.

Discuss what happens to the ice cream.

Have the students explain how a solid like ice cream melts and becomes a liquid.

Explain that today's reading selection will explore how solids and liquids change.

During Reading Strategy:

Have the students read the selection with a partner and listen for what kinds of solids and liquids change and how they change.

After Reading Strategy:

Ask, "How do solids and liquids change?" and "Does heating and cooling change all solids and liquids?"

Discuss students' answers.

Follow the "Ice Cream in a Bag" recipe on the following page to allow students the opportunity to make their own ice cream.

Resources:

Teaching Resources from the Classroom of Laura Candler. The *file cabinet: science activities*.

Retrieved October 16, 2008, from: <http://www.lcandler.web.aplus.net/science/icecream.pdf>

Ice Cream in a Bag

Customary Measurement:

1 gallon ziploc bag
1 quart ziploc bag (heavy duty)
4 cups ice
1/4 cup salt
1 cup whole milk
1 teaspoon vanilla extract
2 tablespoons sugar
cups and spoons

Metric Measurement:

1 large ziploc bag
1 small ziploc bag
1 liter ice
60 ml salt
250 ml whole milk
5 ml vanilla extract
30 ml sugar
cups and spoons

Procedure:

1. Pour the milk, vanilla extract, and sugar into the small ziploc bag. Squeeze as much air out as possible and seal the bag carefully.
2. Place the small ziploc bag down into the large bag. Cover with the ice and salt. Seal the large bag tightly.
3. Shake, toss, and flip the “ice cream machine” for 5 to 10 minutes. If the bag gets too cold to handle, wrap it with a towel or pass it from person to person. Don’t open the large bag to check the ice cream because it may not seal properly afterwards.
4. Open both bags and spoon the ice cream into small cups. Enjoy!

Flavor variations:

1. Substitute other extract flavors for the vanilla.
2. Omit the vanilla and half the sugar. Add strawberry or chocolate syrup to the milk mixture.

Science Explanation:

The salt lowers the freezing point of the water which allows it to get colder than ice (about 28 degrees). This super-cold water and ice mixture causes the liquid milk mixture to freeze and become solid.

Developed by Laura Candler (<http://www.lcandler.web.aplus.net/science/icecream.pdf>)



Literacy Strategy

Module:
Solids and Liquids

Grade and Year:
2nd Grade Year 1

Name of Reading Selection:
Mix It Up!

Page Numbers:
18-23

Before Reading Strategy:

Ask what happens when we mix things.
What happens when two solids are mixed?
What happens when two liquids are mixed?
Can you mix a solid and a liquid?

During Reading Strategy:

Have the students read the selection with a partner and listen for what happens when we make a mixture.

After Reading Strategy:

Ask students what they learned about making a mixture from the reading selection.
Discuss students' answers.
Share the poem "Sarah Cynthia Sylvia Stout Would Not Take the Garbage Out" from Where the Sidewalk Ends by Shel Silverstein with the students.
Discuss that garbage, even though it is gross, is considered a mixture of sorts.

Resources:

Silverstein, S. (2004). *Where the Sidewalk Ends*. New York: HarperCollins.